UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,948	04/27/2001	John Petry	C00-033 CON	9637

23459   7590   09/15/2009
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ART UNIT	PAPER NUMBER
2191	

NOTIFICATION DATE	DELIVERY MODE
09/15/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>27 May 2009</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>70-121</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>70-121</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   This office action is in response to communication filed on 2/7/2009.

2.   Per Applicant's request, claims 1-69 are canceled, claims 70-121 are new.

3.   As per claims 70-121 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 70-72, 84-86, 90-91, 98-105, and 118-121 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Comaniciu et al. (herein Comaniciu, "Image-guided decision support

system for pathology", Spring-Verlag 2000", previously recited.)   further in view of Freifeld

(USPGN 2002/0191836).

As per claim 70,

Comaniciu discloses

a computer including a vision tool parameters input configured to receive, at the

computer, corresponding vision tool parameters corresponding to at least one of

selected one or more given vision tools(See Fig. 1, top block shows a vision tool parameters

input. page 215, section 3, 2nd para., "The client I/O module….A fusion agent capable of

multimodal inputs..." the I/O module takes vision tool parameters and send it to "Server

Retrieval" at the bottom of Fig. 1, to perform "Feature Matching");

a transmitter configured to send, from the computer to a machine vision engine located

remotely from the computer and via a communications network (section 3, 1st para.,

"...The client part is intended to be used in small hospitals...through the Internet..." See Fig 1 for

client server configuration, where the client is the computer and the bottom of Fig. 1 is the

remote machine vision engine, the Internet is a network.), **(i) image data including at least**

one given image to be analyzed by the selected one or more given vision tools(Fig. 1, top

box, I/O where query image gets one given image, Bottom middle box, "Feature Matching"

analyses the image. Fig. 1 shows at least one vision tool.), **and (ii) the corresponding vision**

tool parameters (Fig 1., I/O module of Fig. 1 also get parameters, for example, page 214, last

para. left, "...four visual attributes of the delineated cell nucleus are delineated: shape, texture,

area, and color." These example attributes are considered parameters) ; and

wherein the machine vision engine is remote from the computer (as explained above) ;

The selected vision tool carrying out vision operations including pattern location on the

given image (page 214, left, 3rd para., "...display the images from the database that are the

closest matches to the query..." In order to find closest matches, patterns are located.)

Comaniciu does not specifically disclose

including selectable vision tools including the selected one or more given vision tools.

However, Freifeld discloses

including selectable vision tools including the selected one or more given vision

tools(page 8, claim 31, "…said selected vision tool… results of all applied vision tools…";

[0018], "…He then set virtual vision tools…" where shows selections of visions tools.).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the

invention was made to incorporate the teachings of Freifeld into the teachings of Comaniciu to

include the limitation disclosed by Comaniciu. The modification would be obvious to one of

ordinary skill in the art to want to be able to perform multiple vision operations via multiple

selectable vision tools.

As per claim 71, the rejection of claim 70 is incorporated;

Freifeld discloses

wherein the computer further includes a vision tool selector configured to receive, from a

user, a selection of one or more given vision tools from among the selectable vision

tools (page 8, claim 31, "…said selected vision tool… results of all applied vision tools…";

[0018], "…He then set virtual vision tools…" where shows selections of visions tools and

therefore a vision tool by a user.)

As per claim 72, the rejection of claim 71 is incorporated; Comaniciu discloses

 wherein the machine vision engine includes machine vision software encoded on

computer-readable media and executed by a computer(section 3, "System Architecture",

"...a client-server... implemented in Java..." which include software in Java stored in computer-readable media and executable by a computer.).

As per claim 84, the rejection of claim 70 is incorporated; Comaniciu discloses

wherein the computer includes the transmitter (section 3, 1st para., "...The client part is intended to be used in small hospitals...through the Internet..." See Fig 1 for client server configuration, where the client is the computer and the bottom of Fig. 1 is the remote machine vision engine, the Internet is a network.)

As per claim *85,* the rejection of claim 70 is incorporated; Comaniciu discloses

wherein the communications network includes an internetwork (section 3, 1st para., "...through the Internet..." See Fig 1 for client server configuration, where the client is the computer and the bottom of Fig. 1 is the remote machine vision engine, the Internet is a network.)

As per claim 86, the rejection of claim *85* is incorporated; Comaniciu discloses

wherein the internetwork includes the Internet(section 3, 1st para., "...through the Internet..." See Fig 1 for client server configuration, where the client is the computer and the bottom of Fig. 1 is the remote machine vision engine, the Internet is a network.)

As per claim 90, the rejection of claim 70 is incorporated; Comaniciu discloses

wherein the transmitter is configured to send, via the communications network, an

indication of the selected one or more given vision tools (continue from rejection of claim

70, page 8, claim 31, "…said selected vision tool… results of all applied vision tools…"; [0018],

"…He then set virtual vision tools…" where shows selections of visions tools.).

As per claim 91, the rejection of claim 70 is incorporated; Comaniciu discloses

wherein the machine vision engine includes machine vision software encoded on

computer-readable media and executed by a computer ((section 3, "System Architecture",

"…a client-server… implemented in Java…" which include software in Java stored in computer-

readable media and executable by a computer.).

As per claim 98, the rejection of claim 70 is incorporated; Comaniciu discloses

a client data procurer configured to send an image acquisition command to an image

acquirer to acquire image data including the given image data(see Fig. 1 and related

description).

As per claim 99, the rejection of claim 70 is incorporated; Comaniciu/ Freifeld discloses **a**

receiver configured to receive results data originating from the machine vision engine,

the results data including a result of the machine vision engine having analyzed, with the

selected one or more given vision tools, the given image sent by the transmitter in

accordance with the corresponding vision tool parameters sent by the transmitter (see

rejection of claim 70.).

As per claim 100, the rejection of claim 99 is incorporated; Comaniciu discloses wherein **the**

computer includes the receiver(Fig. 1, "client presenter" receives images and presents

them.).

As per claim 101, the rejection of claim 70 is incorporated; Comaniciu discloses further

comprising an **image acquirer configured to capture and store an image of a part** (page

214, 3rd para., "…loading the query image…")

As per claim 102, the rejection of claim 101 is incorporated; Comaniciu discloses wherein the

image acquirer includes a frame grabber(page 214, 3rd para., "…loading the query

image…selecting a rectangular region…").

As per claim 103, the rejection of claim 101 is incorporated; Comaniciu / Freifeld discloses

wherein the image acquirer is positioned on a production line (Freifeld – [0005],

"…manufacturing process…").

As per claim 104, the rejection of claim 101 is incorporated; Comaniciu discloses further

comprising the machine vision engine (see Fig. 1)

As per claim 105,

Comaniciu/Edwards disclose

a computer including a receiver configured to receive, from a remote source via a

communications network, image data including at least one given image to be analyzed

by one or more given vision tools that have been selected, and corresponding vision tool

parameters corresponding to the selected one or more given vision tools that have been

selected to analyze the given image;

the computer being configured to, following receiving certain data by the receiver, cause

a machine vision engine to analyze, with the selected one or more given vision tools, the

given image to be analyzed in accordance with the corresponding vision tool parameters

received by the receiver; and

wherein the machine vision engine includes the set of individually selectable vision tools

having been configured to, when selected, carry out vision operations including pattern

location(the instant claim essentially claims the receiver aspect of limitations corresponding to

the transmitter aspect of limitations of claim 1. A client communicating with a remote server

must have both transmitter and receiver co-exist at both end of a network to perform desired

functions. The combination of Comaniciu/Edwards suggests an apparatus of a client/server

with both transmitter and receiver. For this reason, the instant claim is rejected for similar

reasons for the rejection of claim 1.)

As per claim 118, it is a system claim essentially claiming the same limitations of claim 70 and is

rejected for similar reasons for the rejection of claim 70.

As per claim 119, it is a method claim essentially claiming the same limitations of claim 70 and

is rejected for similar reasons for the rejection of claim 70.

As per claim 120, it is a computer-readable media claim essentially claiming the same

limitations of claim 70 and is rejected for similar reasons for the rejection of claim 70.

As per claim 121, the rejection of claim 83 is incorporated; Comaniciu / Freifeld discloses

wherein **the vision tool parameters input is located in a manufacturing environment**

(Freifeld – [0005], "...manufacturing process...").

5.   Claims 73-76, 92-95, and 106-109 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Comaniciu et al. (herein Comaniciu, "Image-guided decision support system

for pathology", Spring-Verlag 2000", previously recited.)   further in view of Freifeld (USPGN

2002/0191836) and further in view of Geodeon et al. (herein Geodeon, "Applying Machine

Vision In Electrical Component Manufacturing").

As per claim 73-76, the rejection of claim 71 is incorporated;

Comaniciu/ Freifeld does not specifically disclose

wherein the vision operations include guidance, inspection, gauging, and identification.

However,

Gedeon discloses

wherein the vision operations include guidance (page 748, left col. Middle, "vision guided

robotic application...";), **inspection, gauging, and identification** (page 738, right col.)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the

invention was made to incorporate the teachings of Gedeon into the teachings of Comaniciu/

Freifeld to include the limitation disclosed by Gedeon. The modification would be obvious to

one of ordinary skill in the art to want to examine the geometry of a product as suggested by

Gedeon (page, 738, 4th para, "...examine the geometry of the product..")

As per claims 92-95, the rejection of claim 70 is incorporated; see reasons for rejections of

claims 73-76.

As per claims 106-109, see rejections of claims 73-76.

6.   Claims 77, 78, 96, 97, and 110-117 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Comaniciu et al. (herein Comaniciu, "Image-guided decision support

system for pathology", Spring-Verlag 2000", previously recited.), Freifeld (USPGN

2002/0191836), Geodeon et al. (herein Geodeon, "Applying Machine Vision In Electrical

Component Manufacturing") and further in view of Edwards et al. (herein Edwards,

"Machine vision and its integration with CIM systems in the electronics manufacturing

industry").

As per claim 77, the rejection of claim 71 is incorporated;

Comaniciu / Freifeld / Gedeon disclose

The vision operations include a selectable vision tool and carry out a correspond operation corresponding to the obtained operation vision tool parameters(Freifeld -- page 8, claim 31, "…said selected vision tool… results of all applied vision tools…"; [0018], "…He then set virtual vision tools…" where shows selections of visions tools).

However, Comaniciu / Freifeld / Gedeon does not specifically disclose

The selectable vision tool is guidance vision tool configured to, when selected, (i) the parameters including a model pattern and alignment operation constraints, and (ii) carry out a corresponding guidance operation corresponding to the obtained guidance operation vision tool parameters.

However, Edwards discloses

The selectable vision tool is guidance vision tool configured to, when selected, (i) the parameters including a model pattern and alignment operation constraints, and (ii) carry out a corresponding guidance operation corresponding to the obtained guidance operation vision tool parameters(page 14, item 'Position Feedback is used for alignment of the work piece…as to their exact position…"; page 18, middle, "..process product models", it is inherent that in order to perform alignment, the product model information as well alignment operation constraints are available, otherwise the alignment has no base to carry out the vision operation.)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Edwards into the teachings of Comaniciu /

Freifeld / Gedeon to include the limitation disclosed by Edwards. The modification would be

obvious to one of ordinary skill in the art to want to improve both flexibility and reliability in

manufacturing systems through alignment operation as suggested by Edwards (see page 12,

1st para.).

As per claim 78, the rejection of claim 77 is incorporated;

Edwards discloses

wherein the alignment operation constraints include parameters defining a minimum

match quality and allowable scale and rotation change (page 16, right col, top, "..edge

match..." to perform edge match, minimum match quality and allowable scale and rotation

change needs to be defined.).

As per claims 96-97, the rejection of claim 70 is incorporated; see reasons for rejections of

claims 77-78.

As per claims 110-111, see reasons for rejections of claims 77-78.

As per claim 112, the rejection of claim 105 is incorporated; Comaniciu discloses wherein **the**

computer includes the machine vision engine (Fig. 1).

As per claim 113, the rejection of claim 106 is incorporated; Comaniciu discloses **wherein the**

communications network includes an internetwork(Fig. 1, shows a network).

As per claim 114, the rejection of claim 113 is incorporated; Comaniciu discloses wherein **the internetwork includes the Internet**(Fig. 1, includes Internet).

As per claim 115, the rejection of claim 105 is incorporated; Comaniciu / Freifeld / Gedeon discloses wherein **the selected one or more given vision tools that have been selected have been selected at a location remote from the computer**(Comaniciu – Fig. 1 client is remote from server).

As per claim 116, the rejection of claim 105 is incorporated; Comaniciu / Freifeld / Gedeon / Edwards discloses further comprising **a validator configured to verify associated validation data to ensure client account security, the associated validation data having been associated with the received given image, the selected one or more given vision tools, and the corresponding vision tool parameters** (Edwards –page 15, left col. 3rd para., "…to verify correct lead count and pitch…").

As per claim 117, the rejection of claim 116 is incorporated; Comaniciu / Freifeld / Gedeon / Edwards discloses wherein **the associated validation data has been received by the receiver** (Fig. 1 the server receives data.).

7.   Claims 79-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Comaniciu et al. (herein Comaniciu, "Image-guided decision support system for pathology",

Spring-Verlag 2000", previously recited.) in view of Freifeld (USPGN 2002/0191836) and further

in view of McCall et al. (hereinafter, McCall, USPGN 2004/0005396).

As claims 79-81,

Comaniciu/ Freifeld does not specifically disclose

wherein the vision tool parameters input includes a keyboard, a mousse or a touch pad of the

computer.

However, McCall discloses

wherein the vision tool parameters input includes a keyboard, a mousse or a touch pad

of the computer ([0099], "…input means…keyboard, mouse…touch pad...enter or

view...parameters...")

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the

invention was made to incorporate the teachings of McCall into the teachings of Comaniciu/

Freifeld to include the limitation disclosed by McCall. The modification would be obvious to one

of ordinary skill in the art to want to use widely available input devices such as keyboard, mouse

or touch pad to input parameters.

As per claim 82, the rejection of claim 70 is incorporated;

Comaniciu/ Freifeld does not specifically disclose

wherein the vision tool parameters input is configured to receive the corresponding vision tool

parameters via manual entry at the computer.

However, McCall discloses

wherein the vision tool parameters input is configured to receive the corresponding

vision tool parameters via manual entry at the computer([0099], "…input means…keyboard,

mouse…touch pad...enter or view...parameters..." where the above input methods are manual.)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the

invention was made to incorporate the teachings of McCall into the teachings of Comaniciu/

Freifeld to include the limitation disclosed by McCall. The modification would be obvious to one

of ordinary skill in the art to want to allow users to manually enter parameters.

As per claim 83, the rejection of claim 82 is incorporated;

Comaniciu/ Freifeld does not specifically disclose

wherein the manual entry is via a manual entry interacting with an application program run on

the computer.

However, McCall discloses

wherein the manual entry is via a manual entry interacting with an application program

run on the computer([0099], "…input means…keyboard, mouse…touch pad...enter or

view...parameters..." where there is an application program running on the computer to receive

input)

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the

invention was made to incorporate the teachings of McCall into the teachings of Comaniciu/

Freifeld to include the limitation disclosed by McCall. The modification would be obvious to one

of ordinary skill in the art to want to allow users to manually enter parameters into the computer.

8.   Claims 87-89 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Comaniciu et al. (herein Comaniciu, "Image-guided decision support system for pathology",

Spring-Verlag 2000", previously recited.)   in view of Freifeld (USPGN 2002/0191836) and

further in view of Taylor, III et al. (herein Taylor, USPTN 6,813,621).

As per claims 87, 88 and 89, the rejection of claim 70 is incorporated;

Comaniciu / Freifeld does not specifically disclose

 An image file and the image file includes a JPEG file or a bmp file.

However, Taylor discloses

An image file and the image file includes a JPEG file or a bmp file(c3: 36-42,

"…manipulate…JPEG…BMP…").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the

invention was made to incorporate the teachings of Taylor into the teachings of Silver/Gedeon

to include the limitation disclosed by Taylor. The modification would be obvious to one of

ordinary skill in the art to want to be able to process commonly used JPEG and BMP format

files.

Response to Arguments

In the remark,

1) Applicant's question regarding SPE in the discussion.

1) Examiner's response--

The Applicant discussed the matter with Examiner Wang. Examiner's Supervisor was not in the discussion.

9.   Applicant's arguments with respect to argued claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

It is noted that any citation [[s]] to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. [[See, MPEP 2123]]

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Wang whose telephone number is 571-272-5934. The examiner can normally be reached on Mon - Fri 8:00AM - 4:00PM. Any inquiry of general nature or relating to the status of this application should be directed to the TC2100 Group receptionist: 571-272-2100.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

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obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Philip R. Wang/   9/10/2009